

Tree Regeneration in Swamps

Some swamp tree species regenerate by seed and others primarily by sprouting from severed stumps. Nearly all swamp-adapted tree species require full sunlight to adequately regenerate, thus demanding a removal of the shading overstory. Due to natural fluctuations of the water table and the obvious difficulty of site access, the planting of tree seedlings to regenerate a swamp after a timber harvest is not commonly implemented as a suitable or viable forestry (“silviculture”) practice. Considerations for tree regeneration in swamps:

- To promote stump sprouting (called “coppicing”) for regeneration, and to take advantage of a new flush of tree seed, timber harvests should ideally occur from October through March. However, this period of the year often produces flooded conditions, so you must balance the benefits of enhanced regeneration with the benefits of harvesting when soil conditions are more favorable, with no standing water.
- Stump heights should be 12-inches or less to improve the quality of the stump sprout and subsequent quality of the resulting tree. Coppicing from tall stumps are more prone to infection by fungus, insects and other organisms that result in rapid wood decay in the tree’s interior, thereby significantly reducing the timber value of the tree.

Harvesting Timber in a Swamp

Above all else, it is vital to comply with the numerous state and federal water-quality regulations that govern forestry activities in swamps and wetlands. These regulations are too numerous to outline in this leaflet. You should seek advice and technical assistance from the nearest N.C. Forest Service district office; contact information is available at www.ncforestservice.gov, or by calling the central office in Raleigh at (919) 857-4801.

When harvesting timber in a bottomland swamp, there are some general approaches to consider:

- In addition to complying with the water quality rules, there are specific Best Management Practices (BMPs) for timber harvesting and forestry operations in wetland areas. Generally, most bottomland swamps are also wetlands. BMPs developed for wetlands should be applied in bottomland swamps.
- Identify and clearly mark Streamside Management Zones (SMZs). The North Carolina state rules entitled “*Forest Practices Guidelines Related to Water Quality*” (FPGs) require that a SMZ be established along certain types of streams and bodies of water.
- SMZs can serve multiple-purposes: protection of water quality, visual screens, wildlife/bird habitat corridors and additional sources of tree seed to enhance regeneration.
- Remove as much of the shading overstory as possible within the harvest area to allow full sunlight and enhanced spreading of seed across the harvested area. However, dead trees (“snags”) may be left standing as habitat for small animals and perch trees for birds, as long as the snags are not a safety hazard.

Much of the text in this Forestry Leaflet was adapted from the information booklet “Regenerating and Managing Natural Stands of Bottomland Hardwoods.” Kellison, R.C., et al. Published 1988 by the Bottomland Hardwood Management Taskforce of the American Pulpwood Association. Publication number APA-88-A-6.



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